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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,725	12/09/2003	Kathleen Lane	LANE-HIER-US	5560
7590 05/17/2006			EXAMINER	
PATRICK REILLY BOX 7218 SANTA CRUZ, CA 95061-7218			NGUYEN, NAM V	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/731,725	<b>Applicant(s)</b> LANE ET AL.	
	<b>Examiner</b> Nam V. Nguyen	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/09/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The application of Lane et al. for a "hierarchical electronic watermarks and method of use" filed December 09, 2003 has been examined.

This application is a CIP of 10/456,454 which is filed on June 7, 2003, which claims priority to U.S. provisional application number 60/428,529, which is filed on November 23, 2002.

Claims 1-35 are pending.

#### ***Information Disclosure Statement***

An information disclosure form (PTO-1449) listing the references was not enclosed in the application.

#### ***Drawings***

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

The drawings are objected to under 37 CFR 1.83(a) because they fail to label boxes (4, 10-12, 20, 40) in Figure 1, label boxes (4A to 4G) in Figure 2, label boxes (24-34) in Figure 4 and label boxes (44-70) in Figure 7, label boxes (74 to 84) in Figure 9, label boxes (4, 76, 78) in Figure 10 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the detailed description on page 34 line 10: an Internet 22.

Referring to Figure 8, the drawings are objected to because is not in a flow chart layout.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

Claim 34 is objected to because of the following informalities: the acronym "EPC" is not defined by the claim.

Claim 35 is objected to because of the following informalities: a record of an Electronic Product Code is the same as claim 34.

An appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, the phrase "wherein the message is at least partially formatted in mathematical relationship to at least one of the plurality of authorization key" is confusing and unclear. It is not understood what is meant by such a limitation. Claim 9 depends on claim 1 and in claim 1 the message is NOT formatted at least partially in mathematical relationship to the first authorization key. Is the message is at least partially formatted in mathematically relationship to at least one of the plurality of authorization key?

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918) and Olah (US# 5,396,218).

Referring to Claim 1, Yap et al. disclose a system (60) (i.e. an improved security system) for providing a secure document (10) (i.e. a security identification document) (column 3 lines 66 to column 4 line 24; see Figure 7), the system (60) including:

a computer network (62) including a computer (64) and an RFID transponder (i.e. integrated circuit IC) (see Figure 7), the computer (64) having a database (i.e. memory), and the database containing a first authorization key (i.e. biometric data) (column 14 lines 52 to column 15 line 29);

the secure document (10), the secure document including an integrated RFID circuit (14-18) (i.e. an integrated circuit IC) coupled with a flexible substrate (12) (column 12 lines 30 to 39; see Figure 1);

the flexible substrate (12) having a surface, the surface visibly presenting an information (column 14 lines 13 to 21);

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the integrated RFID circuit (14-18) (i.e. an integrated circuit IC) coupled with the substrate (12), and the integrated RFID circuit (14-18) having a durable memory, a controller (14) (column 12 lines 36 to 46);

the durable memory (i.e. embedded in microcontroller 14) including an information storage sector, the information storage sector having a record of at least a portion of the information (column 5 lines 53 to 63; column 15 lines 31 to 37);

the controller (14) coupled with the durable memory, and the controller (14) for enabling access to the durable memory by the RFID transponder (column 13 lines 27 to 38; column 16 lines 1 to 11);

However, Yap et al. did not explicitly disclose the memory includes the protected sector having at least one datum not recorded within the information of the flexible substrate; and the data security circuit for denying authority to the controller to execute instructions received in a message, where the message is not formatted at least partially in mathematical relationship to the first authorization key.

In the same field of endeavor of a security device authentication in a smart card, Hopkins teaches that a memory (31) includes the protected sector (i.e. a encrypted format section of data) having at least one datum (i.e. a secret value) not recorded within the information of the flexible substrate (12) (column 2 lines 62 to 65; column 5 lines 2 to 7) in order to avoid duplication to the smart card's identification values.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to have a memory with a secret key taught by Hopkins et al. in a security feature of the microprocessor of Yap et al. because having a secret key would increase

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security of reading the data in the memory and to protect the transaction verification and authentication system.

In the same field of endeavor of a portable security system, Olah teaches that a data security circuit (22) (i.e. a comparator) for denying authority to the controller (30) to execute instructions received in a message, where the message is not formatted at least partially in mathematical relationship to the first authorization key (i.e. id code) (column 3 lines 41 to 50; column 4 lines 7 to 13; see Figures 1 and 2) in order to start carrier signal generator.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a comparator in a portable card taught by Olah et al. in a security feature of the microprocessor of Yap et al. in view of Hopkins because having a comparator to compare for a match identification before start carrier signal generator would increase security of a transaction between portable units.

Referring to Claim 3, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, Yap et al. disclose wherein the first authorization key (i.e. biometric data) is at least partially computed on the basis of biometric data (column 15 lines 53 to 65).

Referring to Claims 31 and 33, Yap et al. in view of Hopkins and Olah disclose a method and the system for providing a secure document, to the extent as claimed with respect to claim 1 above, and Hopkins disclose the device further including: at least two different authorization keys (i.e. one is public identification of the user and the other is a secret key) (column 2 lines 52 to 67).



Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918) and Olah (US# 5,396,218) as applied to Claim 1 and in further view of Want et al. (US# 6,008,727).

Referring to Claims 20-21, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, however, Yap et al. in view of Hopkins and Olah did not explicitly disclose wherein the first authorization key that includes a checksum, the checksum computed upon the basis of at least a portion of the information printed on said document.

In the same field of endeavor of a portable security system, Want et al. teach that wherein the first authorization key that includes a checksum, the checksum computed upon the basis of at least a portion of the information printed on said document (column 11 lines 45 to 50) in order to increase security and error checking scheme.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a unique ID code and a checksum taught by Want et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using an ID code with a checksum would increase security in a selected RFID tags.

Claims 2, 10-14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918) and Olah (US# 5,396,218) as applied to Claim 1 and in further view of Brady et al. (US# 6,100,804).

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Referring to Claim 2, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, however, Yap et al. in view of Hopkins and Olah did not explicitly disclose the system further comprising a printer, the printer communicatively coupled with the computer and the printer for adding visible information to the surface of the flexible substrate.

In the same field of endeavor of a portable security system, Brady et al. teach that the system includes a printer (1600), the printer (1600) communicatively coupled with the computer and the printer (1600) for adding visible information to the surface of the flexible substrate (1604) (i.e. a label stock) (column 15 lines 11 to 36; see Figures 16-18) in order to print designated information on a selected RFID tags associated with a selected label.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a printer connect to a computer network to print information on a selected RFID tag associated with a selected label taught by Brady et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using a printer to write information on a selected label would be a convenient way for indicating label.

Referring to Claims 10-11, Yap et al. in view of Hopkins and Olah disclose a secure document system as claimed in claim 1, the claims 10-11 differs from claim 1 in that the claim requires the limitation of claim 2 already addressed above and Brady et al. disclose all the limitation to the extent as claimed with respect to claim 2 above and therefore claims 10-11 are also rejected as being obvious for the same reasons given with respect to claim 2.

Referring to Claim 12, Yap et al. in view of Hopkins, Olah and Brady et al. disclose a secure document system as claimed in claim 10, Yap et al. disclose wherein the digital data includes a unique identification number (column 2 lines 52 to 67).

Referring to Claim 13, Yap et al. in view of Hopkins, Olah and Brady et al. disclose a secure document system as claimed in claim 10, Yap et al. disclose wherein the digital data includes a portion of the information (i.e. a secret value of data) that is printed on the flexible substrate (column 5 lines 1 to 9).

Referring to Claim 14, Yap et al. in view of Hopkins, Olah and Brady et al. disclose a secure document system as claimed in claim 10, Yap et al. disclose wherein the device (12) is a form of currency document or other monetary instrument (i.e. bank card) (column 4 lines 15 to 23).

Referring to Claim 16, Yap et al. in view of Hopkins, Olah and Brady et al. disclose a secure document system as claimed in claim 10, Yap et al. disclose wherein the device (10) is an airline ticket (column 16 lines 31 to 38; see Figure 8).

Referring to Claim 17, Yap et al. in view of Hopkins, Olah and Brady et al. disclose a secure document system as claimed in claim 10, Yap et al. disclose wherein the durable memory also includes other information about the ticket such as destination and flight number (column 16 lines 47 to 52).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918), Olah (US# 5,396,218) as applied to Claim 1 and in further view of Valencia et al. (US# 5,380,991).

Referring to Claim 4, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, however, Yap et al. in view of Hopkins and Olah did not explicitly disclose wherein the message is a revocation of a validity state of the secure document.

In the same field of endeavor of a portable security system, Valencia et al. teach that a coupon (2) (i.e. a customer card) send expiration data of the coupon (column 5 lines 8 to 17; see Figures 1-2) in order to indicate and associate with a validation state of a coupon.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a customer card with an integrated circuit memory with an expiration data taught by Valencia et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using a customer card as a coupon with an expiration data would be a convenient way for properly reimburse by each individual retailer.

Claims 18-19 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918), Olah (US# 5,396,218) and Brady et al. (US# 6,100,804) as applied to Claims 1, 2 and 10 and in further view of Valencia et al. (US# 5,380,991).

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Referring to Claims 18-19 and 27-30, Yap et al. in view of Hopkins, Olah and Brady et al. disclose the system of Claims 2 and 10, however, Yap et al. in view of Hopkins, Olah and Brady et al. did not explicitly disclose the system wherein the device is a coupon and where the durable memory also includes additional information about the coupon such as the redemption value of the coupon.

In the same field of endeavor of a portable security system, Valencia et al. teach that a coupon (2) (i.e. a customer card) and where the durable memory (6) (i.e. EEPROM) also includes additional information about the coupon such as the redemption value (i.e. discount amount) of the coupon (column 5 lines 8 to 21; see Figures 1-2) in order to have a paperless coupon redemption system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a customer card with an integrated circuit memory with a redemption value taught by Valencia et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using a customer card as a coupon with a redemption value would be a convenient way for properly reimburse by each individual retailer.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918) and Olah (US# 5,396,218) as applied to Claims 1 and 10 and in further view of Fell et al. (US 2003/0137145).

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Referring to Claims 5-7, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, however, Yap et al. in view of Hopkins and Olah did not explicitly disclose wherein the secure document is a payroll check, certified check or a cashier check.

In the same field of endeavor of an article security system, Fell et al. teach that a secure document is a check or official document (page 1 paragraph 0015; see Figure 1 to 6) in order to create a convenient daily use for security document.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using a security device in a check or currency note taught by Fell et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using a security device in a check or official document would be easily authenticate the genuinely of a check.

Referring to Claim 8, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, Fell et al. disclose wherein the secure document is a currency note (page 1 paragraph 0015).

Claims 15 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918), Olah (US# 5,396,218) and Brady et al. (US# 6,100,804) as applied to Claims 2 and 10 and in further view of Fell et al. (US 2003/0137145).

Referring to claims 15 and 22, Yap et al. in view of Hopkins, Olah and Brady et al. disclose the system as claimed in claim 10, the claim 15 same in that the claim 8 already addressed above therefore claim 15 is also rejected for the same obvious reasons given with respect to claim 8.

Referring to claims 23-26, Yap et al. in view of Hopkins, Olah and Brady et al. disclose the system as claimed in claim 2, the claims 23-26 same in that the claim 16-17 already addressed above therefore claim 23-26 are also rejected for the same obvious reasons given with respect to claims 16-17.

Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yap et al. (US# 6,111,506) in view of Hopkins (US# 5,757,918) and Olah (US# 5,396,218) as applied to Claim 1 and in further view of Lindsay et al. (US# 6,982,640).

Referring to Claims 34-35, Yap et al. in view of Hopkins and Olah disclose the system of Claim 1, however, Yap et al. in view of Hopkins and Olah did not explicitly disclose wherein the durable memory further comprises a record of an EPC or an Electronic Product Code.

In the same field of endeavor of a RFID security system, Lindsay et al. teach that durable memory further comprises a record of an EPC or an Electronic Product Code (column 7 lines 11 to 19) in order to use to store a unique code on each tag.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using an memory to record an electronic product code of an RFID tag taught

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by Lindsay et al. in an improved security identification document system of Yap et al. in view of Hopkins and Olah because using the memory to store an electronic product code would be easily accessible in associating product information in a database.

***Allowable Subject Matter***

Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 32, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations wherein different authorization keys are provided to different parties to form a hierarchy of access to various sectors of protected information.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



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Carroll et al. (US# 5,517,188) disclose a programmable identification apparatus and method therefor.


Baldi (US# 6,547,151) discloses a currency note comprising an integrated circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571- 272-7308. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nam Nguyen  
May 15, 2006



BRIAN ZIMMERMAN  
PRIMARY EXAMINER